Missouri Department of Natural Resources

Well Drilling Wastewater Management

Water Pollution Program fact sheet 6/2006

Background

Discharging wastewater from well drilling sites may cause water pollution and violate the Missouri Clean Water Law. Wastewater from drilling operations contains sediment, mud, foam and other drilling additives that can pollute a stream or river (even if it is temporarily dry), a wetland, channel or well.

Well cuttings and substances used in the drilling process can cause visual, chemical and biological changes to nearby streams. These changes are recognized as pollution and can degrade water quality supporting fish and aquatic life. This creates violations of the Missouri Clean Water Law and Regulations

Regulatory Requirements

A wastewater permit is not needed when drilling or developing a well as long as you don't pollute a stream, lake or other waterway.

Contractors who impact streams, lakes or other waterways could face penalties and other actions, and may be required to get wastewater permits before working on future drilling projects.

Important Considerations

Each drilling project presents a unique set of factors to consider. Some of these factors are the steepness of the site, how close it is to the nearest water body and the amount of recent rainfall. These factors affect the amount of runoff produced by the drilling process and the distance that the drilling wastewater can travel away from the wellhead.

Well drillers should adopt practices and methods that keep drilling wastewater on-site and out of nearby storm drains or streams. The following are some ways this can be done:

- Take care not to waste any more water than necessary during well drilling, thereby limiting the amount of wastewater runoff
- Collect and control on site any wastewater produced during the drilling process
- Dispose of drilling wastewater to a municipal sanitary sewer collection system when allowed by the system
- Use Best Management Practices (BMPs) to allow only the controlled release of drilling wastewater that is free of sediment, mud, foam and other drilling additives.

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Best Management Practices (BMPs)

When you change the well drilling process or install structures to either avoid discharge or limit the pollutants in the drilling wastewater to the least amount possible during well drilling and development this is referred to as using Best Management Practices. BMPs are also described as practical ways to ensure minimal risk to the environment without costing a lot of extra time or money. It is the driller's responsibility to make sure that BMPs are put in place and maintained during the entire well drilling process. Some examples of BMPs are

- Catchment Basins - A temporary basin that is sized to hold the drilling wastewater until it can either evaporate or it clears up. When clear, the drilling wastewater can be slowly released.
- Filtering Devices - Basins followed by straw bales or cloth capable of removing most of the solids produced in the well drilling process that are in the water. Once clear, the water can be slowly released.
- Land Application - Drilling wastewater can be used to irrigate a land area near the job site if approval is obtained from the landowner and the irrigation rate is slow enough to prevent ponding, pooling or runoff.

For more information call or write

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